UNIVERSITI TEKNOLOGI MARA

FSG721: DISSERTATION I

Course Name (English)	DISSERTATION I APPROVED
Course Code	FSG721
MQF Credit	14
Course Description	This course provides advanced level training for research studies and subsequent careers in a variety of industrial, professional and academic fields. Students are required to plan their research study under the supervision of one or more lecturers in the faculty or industry. Students are expected to give oral presentation on their proposals as well as the preliminary results (if any).
Transferable Skills	scientific oral presentation scientific writing self time management searching relevant literature review jurnal review and critical thinking
Teaching Methodologies	Lab Work, Seminar/Colloquium, Presentation, Directed Self-learning , Supervision
CLO	CLO1 Identify a scientific problem and propose a solution in the form of a scientific strategy with clear objectives. CLO2 Collate and review relevant information from various sources into a well-structured, scientific format; and citing the sources in a correct manner CLO3 Design appropriate experiments and present the scientific methodology with sufficient clarity CLO4 Identify hazards related to the experimental work, assess the risk, and propose risk mitigation measures CLO5 present a research proposal for the research project CLO6 Prepare samples and reagents and perform laboratory experiments and record the data in an acceptable manner
Pre-Requisite Courses	No course recommendations

Topics
1. Writing the introduction 1.1) Students must discussed with their appointed supervisors the research background and identifying the problem in their research project. They are also encouraged to formulate a hypothesis and establish achievable objectives for their research problem.
2. Writing the Literature review 2.1) Students are required to attend a bibliography search training & course organised by UiTM library (PTAR). Also, there is a training course for using ENDNOTE and other relevant software for writing literature review correctly and ethically organised by UiTM Graduate Research Office (IPSIS) or FSG Postgraduate office (PPS) in which all postgraduate students must attend.
3. Writing the methodology and proposed timeline 3.1) Researcher and supervisors are advised to calculate and propose the budget for the research project and propose a suitable timeframe for ordering chemicals and reagents. Subsequently, they could plan a suitable timeline for their research project to be finished on the stipulated period of time.
4. Biosafety & Microbiology Rules and Regulations 4.1) Students are required to attend Microbiology Laboratory Safety, Rules & Regulation briefing session and Biosafety workshop in handling and preparing samples and storage for microbial resources.
5. Oral presentation 5.1) Students will undergo oral presentation to defend their research proposal after the submission of the proposal. A panel of examiner consisting at least 2 lecturers with similar interest with the research topic will be appointed and assessed the presentation session.

6. start the experiment
6.1) Students are encouraged to start their experiment

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	biosafety assessment	10%	CLO4
Portfolio/Log Book	comitment and effort assessed from logbook in the lab and meeting with supervisor	15%	CLO6
Presentation	proposal presentation	15%	CLO5
Written Report	Written report-introduction	10%	CLO1
Written Report	written report-methodology	20%	CLO3
Written Report	written report-literature review	30%	CLO2

Reading List

Recommended Text

- **Alred, G.J., Brusaw, C. T. and Oliu, W. E. 2018, *Handbook of technical writing.*, 12th. Ed., 12, St. Martin's Inc, New York, USA. USA [ISBN: 978-131905852]**
- **Hofmann. A.H. 2016, *Scientific writing and communication: Papers. Proposal and presentations.*, 3rd. Ed., 10, Oxford University Press, UK. UK [ISBN: 978-019027854]**
- **Diskin, Shiri 2018, *The 21St Century Guide To Writing Articles In The Biomedical Sciences*, 1 Ed., 10, World Publishing Co Danver, USA [ISBN: 978-98132337]**

Article/Paper List

Recommended Article/Paper Resources

- **P. Singh, Y. Patil , V. Rale 2018, Biosurfactant production: emerging trends and promising strategies, *Jurnal of Applied Microbiology*, 126, 213 [ISSN: 1365-2672] https://onlinelibrary.wiley.com/journal/13652672**

Other References

- **Book Richard Johnson-Sheehan 2017, *Technical Communication Today*, Pearson, USA**